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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/420,635	10/21/1999	WERNER JUENGLING	MI22-1243	3072

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EXAMINER
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TSAI, H JEY

ART UNIT	PAPER NUMBER
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2812

DATE MAILED: 06/14/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/420,635

Applicant(s)

JUENGLING, WERNER

Examiner

H. Jey Tsai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 April 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 51, 52 and 54-69 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 51, 52 and 54-69 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. § 119**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

**Attachment(s)**

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 21.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: \_\_\_\_\_.

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*Claim Rejections - 35 U.S.C. § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 51-52, and 54-69 stand rejected under 35 U.S.C. § 103 as being unpatentable over Koh et al. 5,686,337 or Chan 5,627,094, or Rosner 5,496,757 or Kim 5,403,767, all are previously cited, or Summerfelt 5,619,393 cited by applicant.

Koh et al. substantially discloses a method of forming an integrated circuit semiconductor device, which includes :

etching insulating layer 30 to form a capacitor container in first etching step fig. 3,

etching insulating layer 30 to form a capacitor container in second etching step, fig. 5,

forming an insulative partition 30A between the capacitor container with anisotropic etching, fig. 7.

Chan et al. et al. substantially discloses a method of forming an integrated circuit semiconductor device, which includes :

etching insulating layer 20 to form a capacitor container in first etching step fig. 2b,

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etching insulating layer 20 to form a capacitor container in second etching step, fig. 2c,

forming an insulative partition 20b between the capacitor container with anisotropic etching, figs. 2c-2e.

Rosner substantially discloses a method of forming an integrated circuit semiconductor device, which includes :

etching insulating layer 4 to form a capacitor container in first etching step fig. 3,

etching (removing) insulating layer 4 to form a capacitor container in second etching step, figs. 4-5,

forming an insulative partition 81 between the capacitor container fig. 6.

Kim also substantially teaches etching insulating layer 7 to form a capacitor container in first etching step fig. 1C,

etching (removing) insulating layer 7A to form a capacitor container in second etching step, figs. 1E,

forming an insulative partition 9A between the capacitor container figs. 1E-1F.

Summerfelt et al. substantially teaches etching insulating layer 70 to form a capacitor container in first etching step figs. 25+,

etching (removing) insulating layer 70 to form a capacitor container in second etching step, figs. 1E,

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forming an insulative partition 56 between the capacitor container.

### ***Conclusion***

Applicant's arguments filed April 11, 2002 have been fully considered but they are not persuasive. Koh et al. clearly teaches an insulating layer 30A formed between two capacitors after second etching in fig. 5 or fig. 7 (meeting claim 51). Chan clearly teaches anisotropical etching first capacitor container opening (left hand side) and anisotropical etching second capacitor container (right hand side) with an insulative partition 20b on a common substrate 10 in fig. 2b. (meeting claims 57-69). Rosner, Kim and Summerfelt also clearly teaches first and second anisotropical etchings to form an insulating partition as set forth above and meeting claims 57-69.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry of a general nature or clerical matters or relating to the status of this application or proceeding should be directed to the Group customer service whose telephone number is (703) 306-3329 and Fax number (703) 306-5515. Group receptionist telephone number 703-308-0956.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to H. Jey Tsai whose telephone number is (703) 308-1374. The examiner can normally be reached on from 7:00 Am to 4:00 Pm., Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Niebling can be reached on (703) 308-3325. The fax phone number for this Group is (703) 308-7722.

hjt

6/5/2002



H. Jey Tsai  
Primary Examiner  
Patent Examining Group 2800